

ABSTRACT

A package for a surface-emitting laser encloses the die between a sub-mount and a cap. The sub-mount and the cap can be formed using wafer processing techniques that permit a wafer level packaging process which attaches multiple die to a sub-mount wafer, attaches caps either separated or as part of a cap wafer to the sub-mount wafer, and cuts the structure to separate individual packages. The cap includes a transparent plate that can be processed to incorporate an optical element such as a lens. An alignment post attached to the cap indicates the position of an optical signal from the laser and fits snugly into one end of a sleeve while an optical fiber connector fits into the other end.